

Draft
Dempster Highway
Timber Harvest Plan
within
Tr'ondëk Hwëch'in *Traditional Territory*

**FOREST MANAGEMENT BRANCH
ENERGY MINES AND RESOURCES
YUKON GOVERNMENT**

Prepared: August 2010

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Date

Executive Summary

The Dempster Highway Timber Harvest Plan (THP) is designed to meet the needs of the Dawson fuel wood industry. Under the Forest Resources Act, all harvesting over 25 m³ must be conducted under an approved THP. The Dempster highway is a traditional harvest area for Dawson's fuel wood and thus, was selected for the creation of a THP. This THP proposes the harvesting of 98 hectares and an estimated 7,350 m³ of fuel wood. This THP is consistent with both the Draft Dawson Forest Resource Management Plan¹ (October, 2009) and direction provided in the Planning Regulation of the Forest Resources Act (FRA).

¹ The Draft Dawson FRMP released in the summer of 2010.

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1.0 Introduction

1.1 Background

The Dempster Highway Area has been a traditional harvest area for Dawson City residents for several years. The Dempster Highway Timber Harvest Plan (THP) is designed to help meet the social and economic forest product demands of Dawson City, while ensuring that environmental and other values are protected.

The selection of areas appropriate for fuel wood harvesting used the following approach:

- Stage 1 Investigate current harvest sites and identify potential fuel wood harvest blocks through aerial photo interpretation.
- Stage 2 Conduct field reconnaissance and verify potential fuel wood harvest areas. This project component also included identification of non-timber values and preliminary road locations.
- Stage 3 Finalize proposed fuel wood harvest blocks and preliminary access strategies.

The Dempster Highway area was chosen as the location for this THP due to its fuel wood suitability, history as a fuel wood area, high priority planning rating and its recommended short term development time frame (Draft FRMP 2009).

1.2 Eco-region and Drainages

The THP is located within the Boreal Cordillera Eco-zone and located in the Klondike Plateau Eco-region. Characteristic terrain features include smooth, unglaciated, rolling plateau topography with moderate to deeply incised valleys and large structural basins composed of level to undulating glaciated terrain. The area slopes gently to the east at an average grade of 5%. The slope tends to increase closer to the Klondike River embankment to the east. Leading species within the region consist of black spruce, white spruce, trembling aspen and white birch. Understory species are generally comprised of suckering species such as willow and there is a minor component of deciduous (aspen) regeneration.

1.3 Socio-economic Values

Dawson City is home to approximately 1,300 people. The major economic drivers in the region are tourism and gold mining. The current annual demand in Dawson is approximately 3500m³ for sawlog and 1500m³ for fuel wood. The industry consists primarily of one sawmill and several fuel wood operators. The forests in the Dawson region provide significant ecological and aesthetic values, cultural and heritage values, recreational values, and other non-timber values. Dawson's forests can sustain a vibrant, small-scale forest industry that provides timber for local markets, energy, economic opportunity, and employment for the region's residents (Draft SFMP 2009). Many of the residents of Dawson rely on fuel wood harvesting as an economical heating alternative throughout the winter.

2.0 Planning Area Identification

The total identified area is 98 hectares with a total estimated volume of 7,350 (see table below)

TABLE 1: Area and Volume Summary

Harvest Area	Volume/ Hectare (m³/ha)	Slope (%)	Aspect	Block Size (ha)	Total Estimated Volume (m³)	Species Composition	Average Stem Height (m)
Dem-1	75	5	East	98	7350	Black Spruce/White Spruce 95% White Birch 5%	14

Refer to Appendix 1 - Dempster Highway Fuelwood Area

2.1 Wildlife

All site plans and operational development must be consistent with the most current wildlife standards² available from the Forest Management Branch (FMB). These standards have been developed to ensure well thought out and balanced planning with respect to wildlife and forest resources. Throughout the preliminary reconnaissance and consultation, no significant wildlife concerns were noted. There are no conflicts with wildlife values identified in fish and wildlife planning for this area.

2.2 Riparian and Water Resources

All riparian management must follow the most current FMB riparian management standards². The North Klondike River is located to the east of the proposed harvest block and is buffered by a reserve zone width of 100m. One small ephemeral drainage runs through the centre of the block. The draw will require a 5 m machine-free zone, directional falling, and limited skid crossings. The machine-free zone may be decreased during frozen ground conditions.

2.3 Heritage and Archaeological Sites

Yukon Archaeological Sites Inventory and the Yukon Historic Sites Inventory did not identify any known historic or archaeological sites in the Dempster Highway THP. The area has been impacted by forest fires, which suggests a low potential for historic era artifacts and structures.

² The FMB standards are located in the Timber Harvesting Planning and Operating Guidebook 1999 while new standards are currently under development and expected to be completed by the winter of 2010.

However, as per the Heritage Resource Assessment recommendations, the following mitigations will be implemented for the Dempster Highway block:

- There will be no harvesting within 100 meters of the North Klondike River;
- With the exception of winter roads, new road construction will buffer any archaeological sites found by a minimum of 30 meters.;
- No mechanical scarification will be permitted within 30 meters of an archaeological site.

(Historic Resources Overview Assessment: Six Proposed Harvest Area in the Dawson Region, February, 2010).

2.4 Soils Conservation

All harvesting operations must follow the current Forest Management Branch soil conservation standards². These standards will ensure that the integrity of soils is maintained across all sites. Harvesting will only be permitted during dry summer or winter conditions in order to mitigate any risks to soil. All roads and landings should be situated to minimize the risk of compaction, erosion, and rutting.

2.5 Traditional Land Users

The Dempster highway area is a traditional fuel wood harvest zone. This area is known as a traditional hunting and berry picking area. There is also an active trapline in the region. These activities have been considered throughout the planning process and are considered compatible with the THP.

3.0 Harvesting Section

3.1 Harvesting

10% in-block retention is required; made up of merchantable mature trees and snags. A large component of the stands mature stems are unmerchantable and will also be retained. This retention will provide structure as standing snags and in the future as coarse woody debris. Harvesting operations shall minimize unnecessary damage to any regeneration. Harvesting the majority of the merchantable stems is necessary to increase the economic viability of the harvesting and decrease the number of areas needed to be accessed. The harvest area may be split up into several blocks in order to accommodate the fuel wood industry.

Harvesting methods include both hand and mechanical falling. Harvesting activities are eligible to begin in dry weather conditions and last until break up in the spring of the following year. Harvesting is expected to continue in the area within the seasonal restrictions until harvesting is completed. The estimated completion date is 2020.

3.2 Reforestation

The schedule for a post-harvest establishment survey(s) will be outlined as part of the site

² The current standards are located in the Timber Harvesting Planning and Operating Guidebook 1999 while new standards are currently under development and expected to be completed by the winter of 2010.

plan for each harvest block. The results of this survey(s), the Silviculture Regulation and the silviculture standards will guide the decision-making towards regenerating these harvest blocks. Natural regeneration is the preferred option with artificial regeneration being used to supplement natural regeneration when necessary.

4.0 Access Management Considerations

Existing access will be utilized and no new roads will be created. Appendix 1 shows the existing access into the Dempster highway blocks. The area will continue to utilize dry weather and winter access as it has in the past. The southern boundary of the harvest area borders undeveloped Tr'ondëk Hwëch'in Settlement Land. In the event that access for commercial or non-commercial purposes is required, and the route taken will incur alteration, Tr'ondëk Hwëch'in must be contacted.

5.0 References

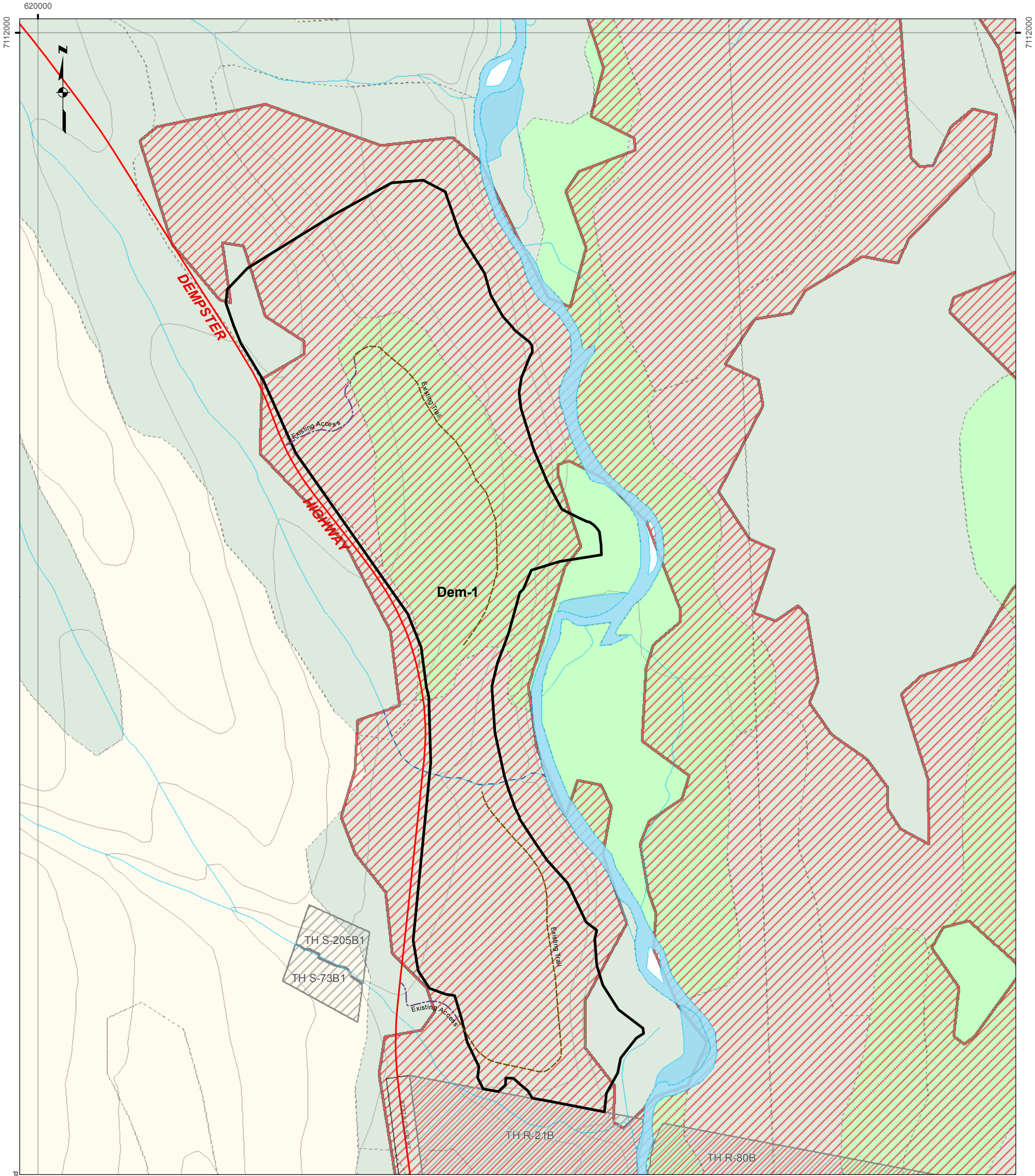
Environmental Dynamics Inc. Report "*Phase 1 Reconnaissance of Fuelwood Areas the Dawson City/Klondike Region.*" December, 2009.

Dawson Forest Management Planning Team "*Dawson Forest Resources Draft Management Plan.*" October, 2009.

6.0 Appendices

Appendix 1: Dempster Highway Fuelwood Area

Appendix 2: Dawson Area Overview Map



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Project Specific Features

-Existing Access Route
-Harvest Blocks
- 2004 Fire
-Existing Trail
-Ephemeral Drainage

Administrative Features

- First Nation Settlement Lands
-Surveyed Parcel
-Category A
-Agriculture Tenure
-Category B
-Land Disposition
-Fee Simple

Forest Cover

- Non Forested Polygons
- Alpine Fir
- Trembling Aspen
- White Spruce
- Black Spruce
- White Birch
- Lodgepole Pine
- Balsam Poplar
- Larch

Date: September 01, 2010
Projection: NAD 1983 UTM Zone 7

Digital Data Sources

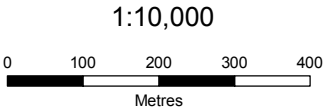
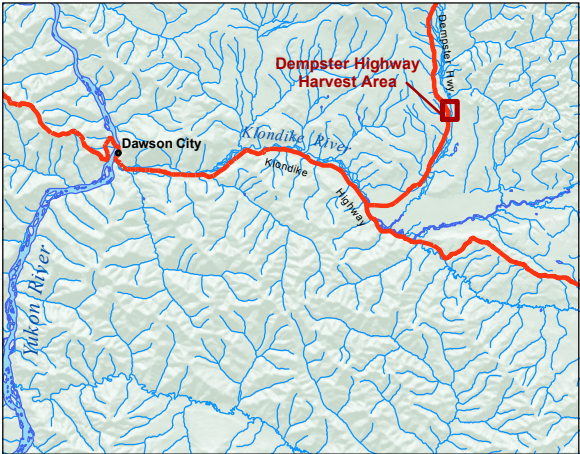
1:50,000 Canvec features downloaded from spatial data warehouse - www.geogratis.gc.ca. Her majesty the Queen in Right of Canada, Department of Natural Resources. All rights reserved.

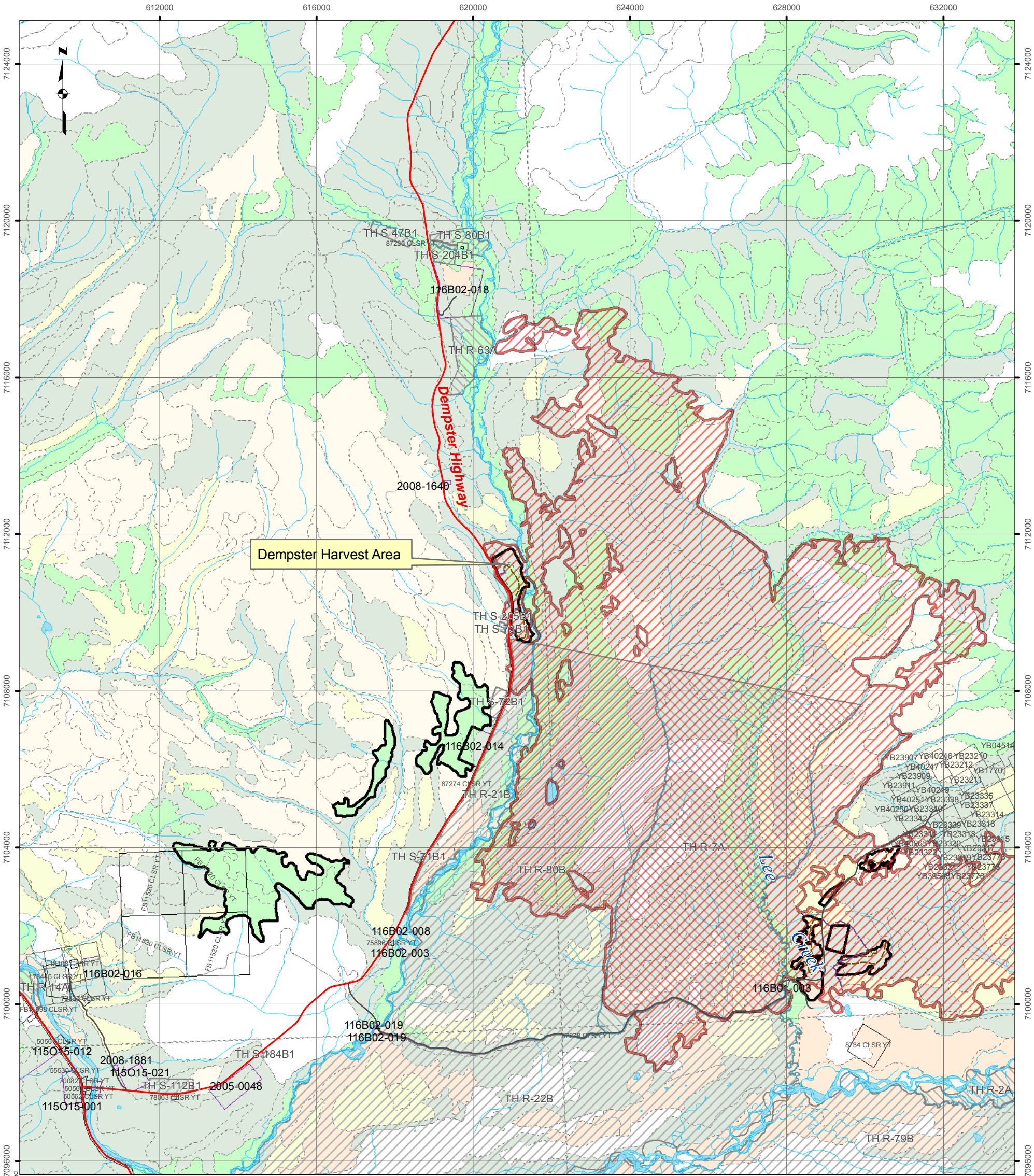
Project specific features such as Existing and Proposed Access Routes and Proposed Harvest Areas were derived/digitized by EDI Environmental Dynamics Inc. Fall 2009.

Digital Elevation Models (30 metre and 90 metre) provided by Yukon Government Geomatics spatial data warehouse - www.geomaticsyukon.ca.

**Appendix 1
Timber Harvest Plan Area
Dawson City / Klondike Region**

Dempster Highway Fuelwood Area





Project Specific Features

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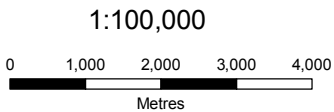
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**Appendix 2
Timber Harvest Plan Area
Dawson City / Klondike Region**

Dempster Highway Fuelwood Area

